# noranda

A billion dollar corporation: 93% owned by 29,400 Canadians

50TH ANNIVERSARY

# annual report - 1972

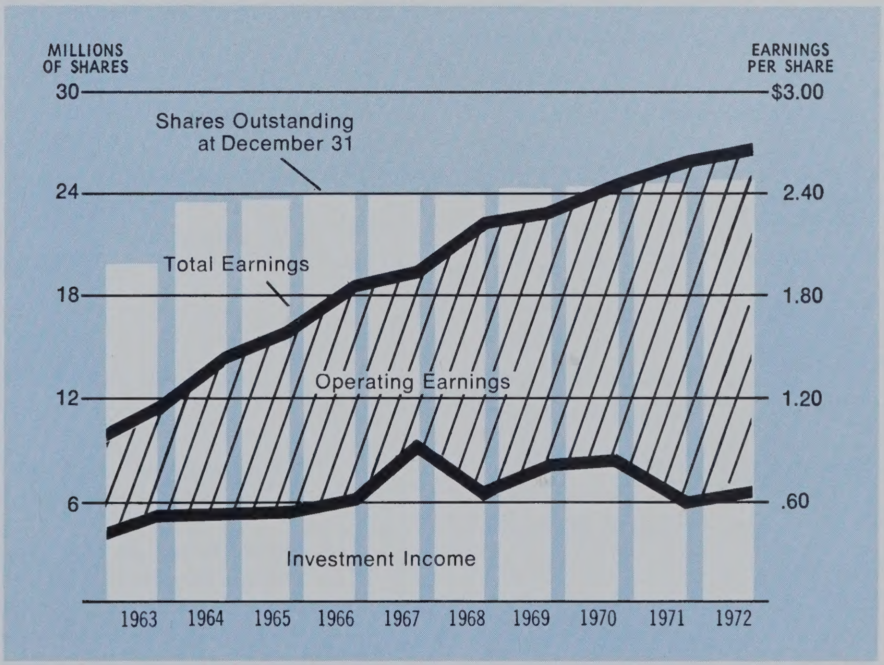
**The cover:**

Pictured on the cover is a portion of the copper mural in the main reception area of the Head Office on the 45th floor of the new Commerce Court building. The mural is the work of Mr. Laszlo Buday, a Toronto artist who came to Canada from Hungary in 1957. He artistically depicts the mining and recovery of copper and other metals which Noranda produces.

noranda

# FINANCIAL SUMMARY

| | 1972 | 1971 | 1970 | 1969 | 1968 | 1967 | 1966 |
|---|---|---|---|---|---|---|---|
| | | | | (in millions) | | | |
| **Operating revenue** | **$576** | $462 | $457 | $428 | $426 | $373 | $288 |
| **Dividends and interest earned** | **16** | 16 | 24 | 20 | 17 | 14 | 10 |
| **Depreciation and preproduction charges** | **33** | 24 | 21 | 17 | 16 | 13 | 14 |
| **Taxes** | **34** | 34 | 37 | 37 | 34 | 35 | 30 |
| **Earnings** | **64** | 61 | 60 | 54 | 52 | 50 | 48 |
| **Working capital** | **121** | 139 | 132 | 76 | 134 | 108 | 98 |
| **Capital expenditures** | **118** | 93 | 95 | 70 | 58 | 47 | 41 |
| **Investments and advances** | **205** | 190 | 222 | 205 | 170 | 148 | 88 |
| **Long-term debt** | **350** | 321 | 224 | 178 | 224 | 85 | 9 |




**ANNUAL MEETING** April 27th, 1973, 2.30 p.m., Royal York Hotel, Toronto.

Head Office address — P.O. Box 45, Commerce Court West, Toronto, M5L 1B6

## DIRECTORS

**John R. Bradfield*,**
Chairman, Noranda Mines, Toronto—Elected 1950

**James C. Dudley,**
Independent Financial Consultant, New York—Elected 1970

**Hon. George B. Foster,**
Senior Partner—Foster, Leggat, Colby & Rioux, Montreal—Elected 1954

**Louis Hébert,**
President, Banque Canadienne Nationale, Montreal—Elected 1968

**William James*,**
Partner—James, Buffam & Cooper, Toronto—Elected 1968

**L. G. Lumbers*,**
Chairman, Noranda Manufacturing Ltd., Toronto—Elected 1962

**André Monast,**
Partner—St. Laurent, Monast, Desmeules & Walters, Quebec—Elected 1966

**R. V. Porritt*,**
Vice-Chairman, Noranda Mines, Toronto—Elected 1958

**Alfred Powis*,**
President and Chief Executive Officer, Noranda Mines, Toronto—Elected 1964

**W. S. Row*,**
Executive Vice-President, Noranda Mines, Toronto—Elected 1960

**J. D. Simpson,**
Chairman, Placer Development Ltd., Vancouver—Elected 1962

**W. P. Wilder*,**
Chairman, Canadian Arctic Gas Studies Limited, Toronto—Elected 1966

* Member of the Executive Committee

## OFFICERS

**Alfred Powis,**
President and Chief Executive Officer

**W. S. Row,**
Executive Vice-President

**J. N. Anderson,**
Vice-President—Metallurgy

**R. C. Ashenhurst,**
Secretary

**John R. Bradfield,**
Chairman

**W. G. Brissenden,**
Vice-President—Mines

**E. K. Cork,**
Vice-President—Treasurer

**J. A. Hall,**
Vice-President—Mine Projects

**K. C. Hendrick,**
Vice-President—Sales

**J. O. Hinds,**
Executive Assistant to the President

**L. G. Lumbers,**
Vice-President

**R. L. Pepall,**
General Counsel

**R. V. Porritt,**
Vice-Chairman

**R. P. Riggin,**
Vice-President—Corporate Relations

**D. E. G. Schmitt,**
Vice-President—Mines

**A. H. Zimmerman,**
Vice-President—Comptroller

## HONORARY DIRECTORS

**F. M. Connell**

**A. O. Dufresne**

**L. H. Timmins**

## TRANSFER AGENT AND REGISTRAR

**Canada Permanent Trust Company,**
Toronto, Vancouver, Calgary, Saskatoon, Winnipeg, Montreal, Saint John, N.B., Halifax, Charlottetown and St. John's, Nfld.

**The Chase Manhattan Bank,** New York, N.Y.

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*An English or French edition of this Report may be obtained from the head office of the Company at P.O. Box 45, Commerce Court West, Toronto, Ontario M5L 1B6.*

*On peut se procurer la version française ou anglaise de ce rapport en en faisant la demande au siège social de la compagnie, B.P. 45, Commerce Court West, Toronto, Ontario M5L 1B6.*

# DIRECTORS' REPORT

## Earnings and Dividends

In its 50th year, Noranda again achieved record earnings, although the increase over 1971 was modest.

| Earnings per share | 1972 | 1971 |
|---|---|---|
| From mining and metallurgy | $ 2.51 | $ 2.57 |
| From manufacturing | .47 | .22 |
| From forest products | .44 | .14 |
| | 3.42 | 2.93 |
| Less: common costs | .77 | .40 |
| Net earnings | 2.65 | 2.53 |
| Extraordinary items | — | (.03) |
| | $ 2.65 | $ 2.50 |

Reported earnings do not include Noranda's equity in the undistributed earnings of corporations less than 50% owned, either in Canada or elsewhere. Had they been included, 1972 earnings would have been approximately 18¢ per share higher. It is planned to include Noranda's share of such earnings when reporting 1973 results.

Earnings from mining and metallurgical operations throughout 1972 continued to be adversely affected by the high value of the Canadian dollar and generally weak copper and molybdenum prices. Cost increases continued to exceed productivity gains by a wide margin, and net exploration costs were considerably larger. Favourable factors included higher zinc and gold prices and increased dividends from associated mining companies. The net result was that earnings from mining and metallurgical operations and investments were somewhat lower than in 1971.

On the other hand, earnings from manufacturing and forest products operations were very substantially improved, mainly because of a booming housing market in North America which caused strong demand for building products and very high lumber prices. Other factors were improved efficiency, particularly in U.S. operations, and rising demand for non-building products reflecting better economic conditions. The most disappointing factor was the continuation of extremely depressed prices for primary aluminum.

As a result, net earnings from operations before common costs were about 17% above those of 1971; however, this increase was almost entirely offset by higher common costs, primarily net interest expense which reflected a full year's operation of the aluminum smelter and consolidation of the results of Brunswick Mining and Smelting.

A table on page 30 shows earnings from the main segments of Noranda's operations in detail. Before common costs, mining and metallurgical operations and investments accounted for 73% of earnings compared with 87% in 1971. Manufacturing increased its contribution to 14% from 8%, while forest products accounted for 13% of earnings compared with 5% the previous year.

Four quarterly dividends of 30¢ per share were paid during 1972, bringing the total payment for the year to $1.20 per share, the same as in 1971.

## Major Developments

During 1972 the Mattabi Mines project, 60% owned by Mattagami Lake, began production at mid-year on schedule and within budgeted costs. The Gibraltar Mines project in British Columbia, 71% owned by Placer Development was completed during the first quarter ahead of schedule, with capital costs less than budget. Start up at the wholly-owned Bell Copper division was delayed until October by the construction labour lock-out in British Columbia, and costs were somewhat over budget. At all three operations, no unusual start-up problems were encountered.

Completion of British Columbia Forest Products' new pulp mill at Mackenzie was similarly delayed, but it was in partial operation at the year end with no serious problems to date. Capital costs were close to budget. Operations of the new sawmill at Houston, B.C. have improved steadily since it was acquired by Northwood Pulp during the first quarter.

The first stage of conversion of the Brunswick Mining and Smelting zinc-lead smelter to a lead smelter was completed shortly after the year end.

The $133 million expansion of copper production facilities in Quebec should be substantially completed in April at close to the budgeted cost. This involves doubling Gaspé Copper's production of copper in concentrate to 70,000 tons per year, increasing its annual smelting capacity by 27,000 tons of copper and, to control sulphur emissions, constructing a plant to produce 300,000 tons of sulphuric acid per year. Also, annual smelting capacity at Noranda, Que. is being increased by 55,000 tons through construction of a commercial sized Noranda Continuous Smelting Process reactor. The increase of 70,000 tons in

refining capacity of Canadian Copper Refiners in Montreal East has been completed. A further increase of 60,000 tons has been started to bring capacity to 480,000 tons per year at a cost of $5.8 million. Completion is scheduled for late 1973.

It has also been decided to modify and enlarge by over 50% the capacity of the Canadian Electrolytic Zinc plant at Valleyfield, Que. at a cost of about $30 million. Following completion in 1975, capacity will be some 225,000 tons of zinc metal per year. Noranda will contribute 50% of the capital required for the expansion and will increase its ownership of the plant to 22.67% from 9% at present. The balance of the plant will be owned 51.67% by Mattagami Lake, 15.83% by Orchan and 9.83% by Kerr Addison.

A new basis of prorationing adopted by the Saskatchewan government required a curtailment of the operations of Central Canada Potash during the fourth quarter to about 50% of the levels achieved under the previous regulations. The annual loss of earnings to Noranda resulting from this new basis of prorationing is more than $4 million, and the regulations have been challenged by legal actions launched by Central Canada Potash.

## Financial

Capital expenditures and investments during 1972 were a record $142 million, of which about 70% was for the Quebec copper expansion and the Bell Copper project. On the other hand, long term debt increased by a net amount of some $29 million and retained cash flow from operations was $79 million. Working capital declined by slightly more than $18 million.

During 1973, capital expenditures will be substantially lower if no new projects or investments not presently contemplated are undertaken. As a result, it is expected that working capital will increase.

## Outlook

While forecasting of metal prices is hazardous, there should be improvement during 1973 resulting from the buoyant economic conditions generally predicted throughout the industrialized countries. In addition, as the year progresses the major expansion of copper capacity in Quebec and improved operations at Brunswick should contribute important additions to earnings. On the other hand, costs continue to rise and the direction of the value of the Canadian dollar is uncertain. These factors, together with continued curtailed operations at Central Canada Potash and a probable slackening in housing activity, will affect earnings adversely. However, barring a major work stoppage, earnings during 1973 should improve fairly significantly, particularly in the last three quarters.

The longer term outlook is clouded by continuing cost inflation, confusion with respect to the new Canadian tax system and uncertainty concerning government policies as they affect industry generally. For the mining industry as a whole, there will be a substantial decline in expenditures on new projects in Canada during 1973, with most of the money being spent on projects carried over from previous years. Whether this proves to be a temporary pause or the beginning of permanent stagnation will depend on government policies. However, given reasonable economic and political conditions, Noranda should be in a strong position to participate in the expected growth of the Canadian and world economies.

On behalf of the board,

Alfred Powis

President.

Toronto, February 12, 1973.

J. A. Hall, A. Powis, E. K. Cork and R. P. Riggin holding an informal discussion.

# MARKETS

Metals consumption showed significant growth in 1972 stimulated by renewed business confidence and activity in the major industrial economies. Continuing strong markets and currency uncertainties in 1973 have resulted in significant price increases for copper, zinc, lead, gold and silver.

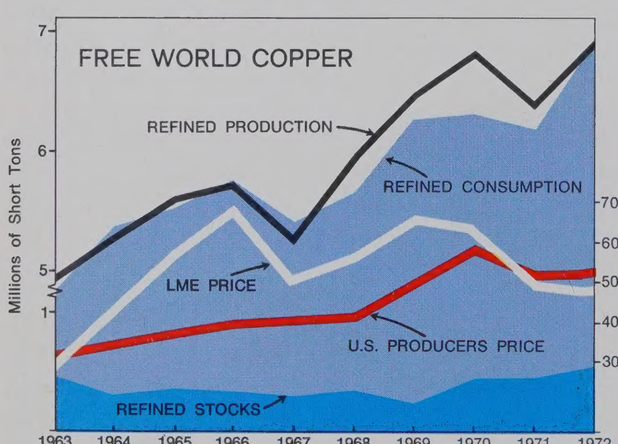
## Copper

The surplus of refined copper was substantially less than generally predicted levels due to higher consumption particularly in the U.S.A., Japan and Germany and continued smelting and refining difficulties in Chile.

As a result, the rise in stocks was limited to 90,000 tons despite increases in refined production of some 400,000 tons and by year end stock levels were declining.

The London Metal Exchange price ranged from 45¢ U.S. to 48¢ during the year except for brief rises to 53¢ in March and 50¢ in September. The U.S. producers price increased 2¼¢ to 52½¢ in February but declined to 50½¢ in July. Noranda's domestic price increased 2¼¢ in February to 52⅝¢ and then declined to 52½¢ in May, 51¼¢ in June and 49¾¢ in July before being adjusted to 50½¢ in December as the Canadian dollar weakened.

Increased physical demand at the turn of the year pushed LME prices higher and U.S. and Canadian copper prices rose 2½¢ to 53¢ early in January.



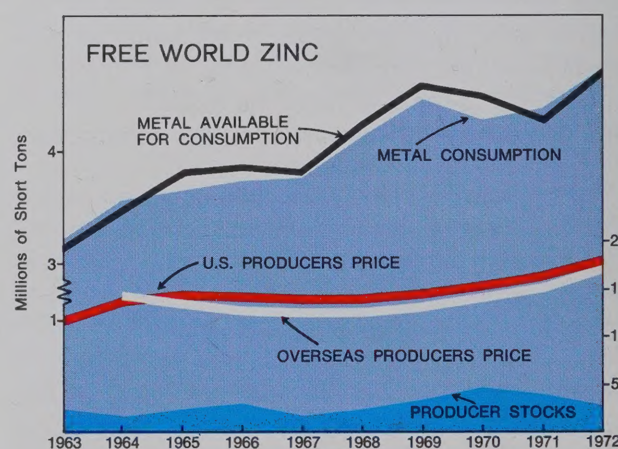

## Zinc

World consumption was up 6% to a record 4,700,000 short tons. Production remained in balance despite closure of further uneconomic capacity. Smelters generally operated at full production from mid year and 211,000 tons were released from the U.S. stockpile.

Legislation to limit imports of zinc and lead metal and lead concentrate at current duty levels and providing for duty free imports of zinc concentrate was introduced into the U.S. Congress but was not considered before the U.S. election.

In the U.S. and Canada, prices increased 1¢ in March to 18¢, the ceiling under U.S. price freeze regulations. Noranda's price for U.S. and Canadian sales increased a further 1¢ in May and ½¢ in November to 19½¢. The overseas price rose from the equivalent of 17¢ U.S. to 18 2/5¢ U.S. in November. Two U.S. producers were permitted to increase their prices by ½¢ to 18½¢ U.S. in December on cost justification.

Price control of international commodities in any major industrial market leads to uncertainty and progressive dislocation in the marketplace as evidenced by the variety of prices quoted in the United States during the year.



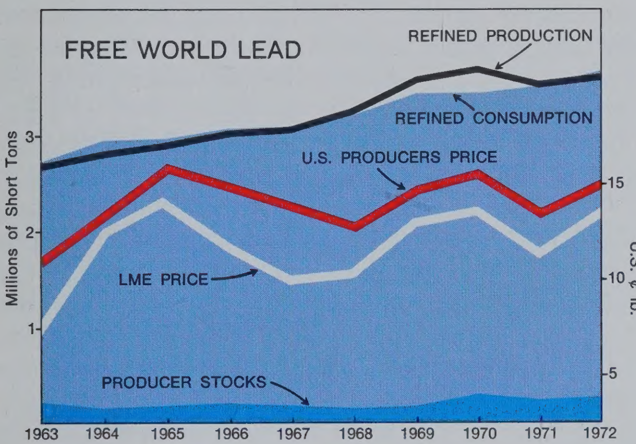

## Lead

Stronger demand in Europe and Japan contributed to a 4% increase in world consumption. Higher production in the U.S.A. resulted in a modest stock increase. Shipments from the U.S. stockpile totalled 50,000 tons but were suspended at the year end.

The debate on reducing the lead content of gasoline continues and the general implementation of the lower levels proposed by the U.S. Environmental Protection Agency has been postponed one year to January 1975.

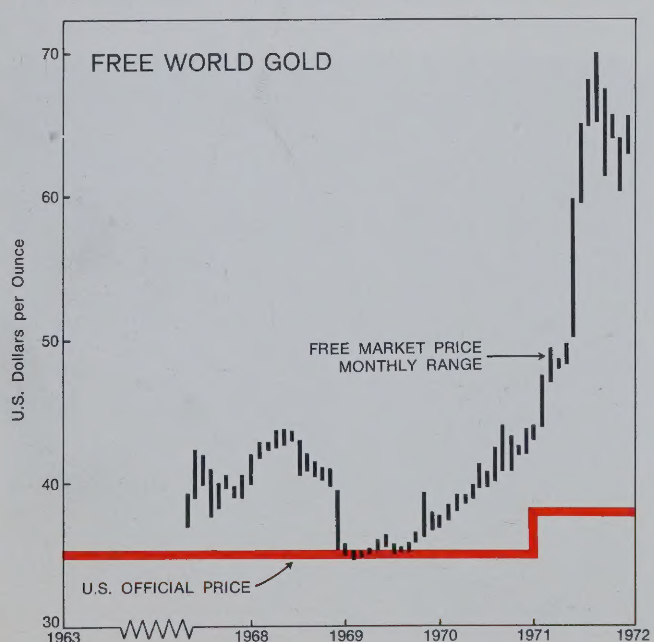
By April North American prices had increased by 2¢ to 16¢ per pound largely as a result of heavier demand prior to potential work stoppages.

Subsequently they declined to 14½¢ - 15¢ in the U.S. and 15¢ in Canada. The London Metal Exchange price rose from 10 4/5¢ to reach 14¢ at the year end.




## Gold

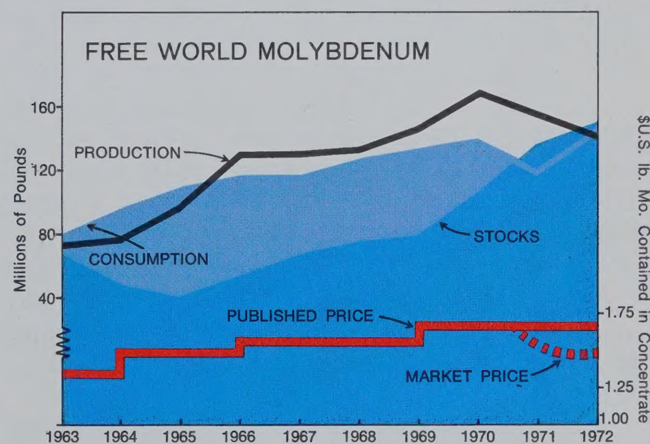
Strengthening industry demand and speculation on the continued monetary significance of gold characterized the market in 1972. South Africa withheld up to one third of its production from sales and although Russian offerings substantially increased, the price reached a record level of U.S. $70 per ounce in August, up from $42 in January. Profit taking moved prices back to about $60 per ounce, but the year closed at $65.




## Molybdenum

Consumption increased by more than 13% to 134 million pounds as production of specialty, stainless and tool steels climbed from the very depressed 1971 levels. Continued operating cutbacks were successful in balancing production with demand and industry stocks are at the 100 million pound level. A further 46.7 million pounds in the U.S. stockpile overhangs the market. Consumption is expected to increase by 10% in 1973 and stocks should begin to decline.

Prices continued to erode until late in the year when there was some evidence of improvement.




## Silver

Stronger demand and the decline in speculative stocks throughout the year caused prices to move from $1.38 per ounce to $2.03 at year end. World consumption exceeds available supplies from new mine production and secondary sources and further stock reductions are expected.

## Aluminum

In the first half of the year the North American primary aluminum industry operated at the 1971 rate of about 80% of capacity. Increased demand in the second half reduced inventory levels so that at the year end, operations were restored to approximately 90%. U.S. shipments were some 13% higher than 1971. Prices appeared to stabilize during the fourth quarter and with further increased demand forecast for 1973, should start to show a modest improvement.

# ENVIRONMENTAL CONTROL

### Fertilizer

Noranda became involved with fertilizers in 1966 through participation of Canadian Electrolytic Zinc in the Valleyfield plant of St. Lawrence Fertilizers. The mine of Central Canada Potash followed in 1970 and in 1972 Belledune Fertilizer in New Brunswick was acquired. The combined capacity of St. Lawrence and Belledune for phosphate fertilizers is over 400,000 tons per year, the largest in Eastern Canada. These two plants provide outlets for sulphuric acid recovered from metallurgical operations.

Total sales of fertilizers in 1972 were $31 million. Demand for phosphate fertilizers has strengthened significantly and resulting higher price levels are expected to continue through 1973.

# RESEARCH

Canada Wire and Cable has established a Technology Development group at the Research Centre to exploit new technology resulting from materials research.

An ecologist was added to the Research Centre staff and biological field surveys were completed in collaboration with several companies in the group.

A novel process for the hydrometallurgical treatment of copper concentrate was discovered in 1972. The extraction of copper is good and most of the sulphur remains in the elemental form. This work is still at the laboratory stage.

Continued pilot plant work on the Noranda Continuous Smelting Process has shown that the use of oxygen-enriched blast increases throughput by about 50%. In commercial size units the cost of the oxygen would be offset by a reduction in fuel consumption.

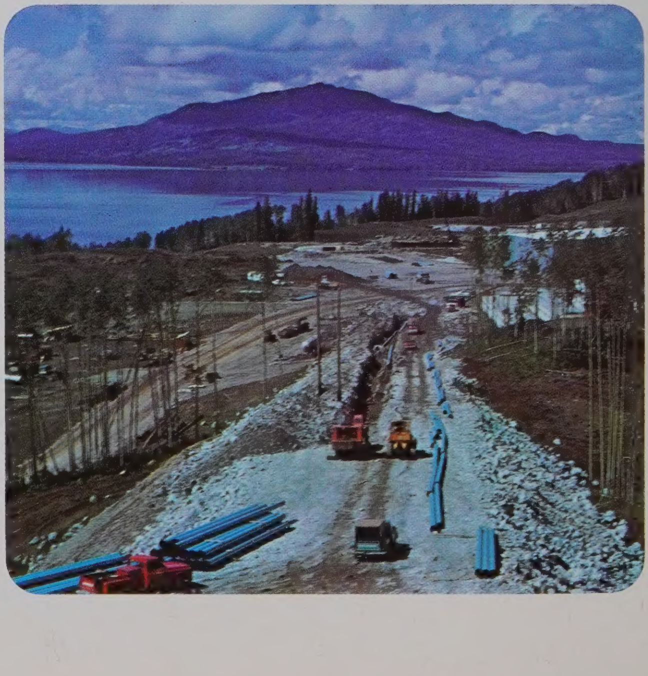
Equipment has been developed for the direct casting of zinc-aluminum screw machining alloy rod. This is cheaper than billet casting and extrusion and gives an excellent surface finish to the rod.

Expenditures at the Research Centre in 1972 amounted to $1.6 million. The total staff at year-end was 98 of whom 38 were scientists.

Major capital expenditures for environmental control improvements were directed towards the reduction of gaseous emissions at the three smelters. Installations of baghouses and additional electrostatic precipitators will substantially reduce the particulate matter from air emissions. At Gaspé where normal meteorology is complicated by the mountainous terrain, sulphur dioxide emission will be reduced by the fixation of more than 80% of the sulphur in the smelter feed when the 300,000 ton per year acid plant is completed.

Facilities for the recycling of process waters have been provided at all new plant sites and recycling systems have also been extended or added at some of the older plant locations. Where local hydrology and plant metallurgy permit, all of the discharge is recycled and at sites where the metallurgy is complex the practice is to develop programs for re-use of the maximum volume of process water.

An agreement with the New Brunswick and Federal governments to jointly establish a pilot plant for waste water treatment at the Brunswick minesite has initiated a very interesting and important project. The objective of this cooperative effort and study is to develop a better understanding of the available technology for practical and predictable application to a broad range and variety of water problems relative to the mineral industry.



# EXPLORATION

During 1972, $8.8 million was expended on mineral exploration compared to $9.7 million in 1971. This was spent 50% in Canada, 21% in Australia, 16% in the U.S.A., and 13% elsewhere. The current Canadian program is being stepped up, particularly in the north.

An option was exercised on a 75% interest in a Quebec property which was then sold to Orchan Mines. Noranda will receive $500,000 and the right to participate following extraction of the first 2 million tons.

Development work and feasibility studies continue on the Koongarra (Jim Jim) uranium deposit in Australia. The original Fernandez Joint Venture uranium property in New Mexico is being maintained in good standing.

Under the direction of Dr. R. J. Miller, Vice-President — International Operations, Noranda Exploration Company Limited, projects are being carried out in Argentina, Brazil, Ireland, Mexico, Portugal, Sardinia, South Africa, Spain and the U.K. In the U.S.A., work continues through 5 regional offices.

Dr. A. M. Bell who joined Noranda in 1934 retired after 39 years and Dr. W. L. Brown has taken over his responsibilities as Vice-President and General Manager of Noranda Exploration.

## NORTHERN OIL EXPLORERS

Noranda and Gaspé Copper share equally a 20% interest in Northern Oil Explorers and at year-end had contributed a total of $7.8 million towards exploration. Noranda's contribution in 1972 was $750,000. Small commercial hydrocarbon discoveries have been made in the Balzac and Louise Creek areas. These are in production and during 1972 the net receipts to Noranda-Gaspé from these was $45,000.

The N.O.E.L. agreement between Great Plains Development, Barber Oil and Noranda was revised in 1972 changing from a fixed annual budget of $7.5 million to a variable budget which from 1973 may be in a $4 to $5 million range. Lands held by N.O.E.L. total some 8,860,000 gross or 5,611,000 net acres.

## PANARCTIC OILS

Noranda has a 4.5% interest in Panarctic Oils and over the past five years has subscribed $3.3 million for its exploration programs. Cash calls of $0.9 million are due in 1973.

The Fourth Expansion Agreement was made late in 1972. This provided for a split of common shares 20 for one, exchange of preferred shares for common one for one and the subscription of $25 million by the participants for common shares at $10 each. After all this Noranda will hold 1,585,622 common shares.

Panarctic to date has made three major gas discoveries. During 1972, 16 wells were drilled and 1973 plans call for drilling 23 wells.

Panarctic is participating in a Pipe Line Study Group in anticipation that a gas pipe line will be required to deliver gas from the Arctic Islands to eastern North America.

(left)
Installation of water recycling pipe-lines at Bell Copper, Babine Lake, B.C.

(right)
Aboriginal drawing on a rock cliff in the Koongarra area of Australia.

# MINING AND METALLURGICAL
## Consolidated Companies

### HORNE MINE

The mine produced 690,000 tons of ore averaging 2.28% copper and 0.162 oz. gold per ton, almost all of which was treated in the concentrator. Materials recovered were 95,000 tons of copper concentrates for smelting and 142,000 tons of pyrite concentrates for sale to chemical plants. Pyrite recovery ended during the year, after shipment of 4,500,000 tons.

Ore reserves at December 31, were:

| | Tons | Copper % | Gold Oz/Ton |
|---|---|---|---|
| Sulphide Ore | 1,058,000 | 2.11 | 0.155 |
| Joliet Fluxing Ore | 32,000 | 0.8 | — |

Reserves should be sufficient to maintain the operation until June 1974.

A re-evaluation of the low grade Chadbourne gold deposit indicated that it cannot be mined profitably at this time.

### Smelter

A new record smelter production of 236,000 tons of anode copper was achieved. The $19 million construction program for the Noranda Continuous Smelting Process prototype, designed to treat 800 tons of copper concentrate per day, and additional dust collection equipment will be complete by March 1973.

| | Material Smelted | | Copper Content of |
|---|---|---|---|
| | Noranda | Custom | Anodes Produced |
| | (Tons) | (Tons) | (Tons) |
| 1972 | 705,000 | 780,000 | 236,000 |
| 1971 | 724,100 | 825,500 | 233,040 |
| 1970 | 769,000 | 776,800 | 210,900 |
| 1969 | 811,200 | 776,500 | 220,860 |
| 1968 | 822,900 | 790,900 | 221,600 |

### CANADIAN COPPER REFINERS

Refined copper production increased 10% due to higher output from the Noranda smelter and to the resumption of normal shipments from Hudson Bay Mining and Smelting Company after their strike in 1971. Silver production was up 11% while gold production decreased 7% reflecting in part lower gold production from the Horne Mine.

In November 1972 periodic reverse current (PRC) was in regular service in the larger of the two tank houses, bringing refining capacity to 420,000 tons a year. However, the need has developed for refining capacity above this level. The increase could not be achieved by the use of PRC alone and it was decided to add eighteen new sections to the smaller of the two tank houses. This will bring CCR refining capacity to 480,000 tons a year. The cost of this new project will be $5,800,000 and it will be in operation by the end of 1973.

A new parting plant for silver and gold refining will go into service in March 1973.

| | Refined Metal Production | | |
|---|---|---|---|
| | Copper | Silver | Gold |
| | (tons) | (ounces) | (ounces) |
| 1972 | 376,000 | 14,291,000 | 377,000 |
| 1971 | 342,000 | 12,885,000 | 405,000 |
| 1970 | 349,000 | 12,447,000 | 424,000 |
| 1969 | 327,000 | 12,360,000 | 389,000 |
| 1968 | 351,000 | 13,084,000 | 435,000 |

### GECO MINE

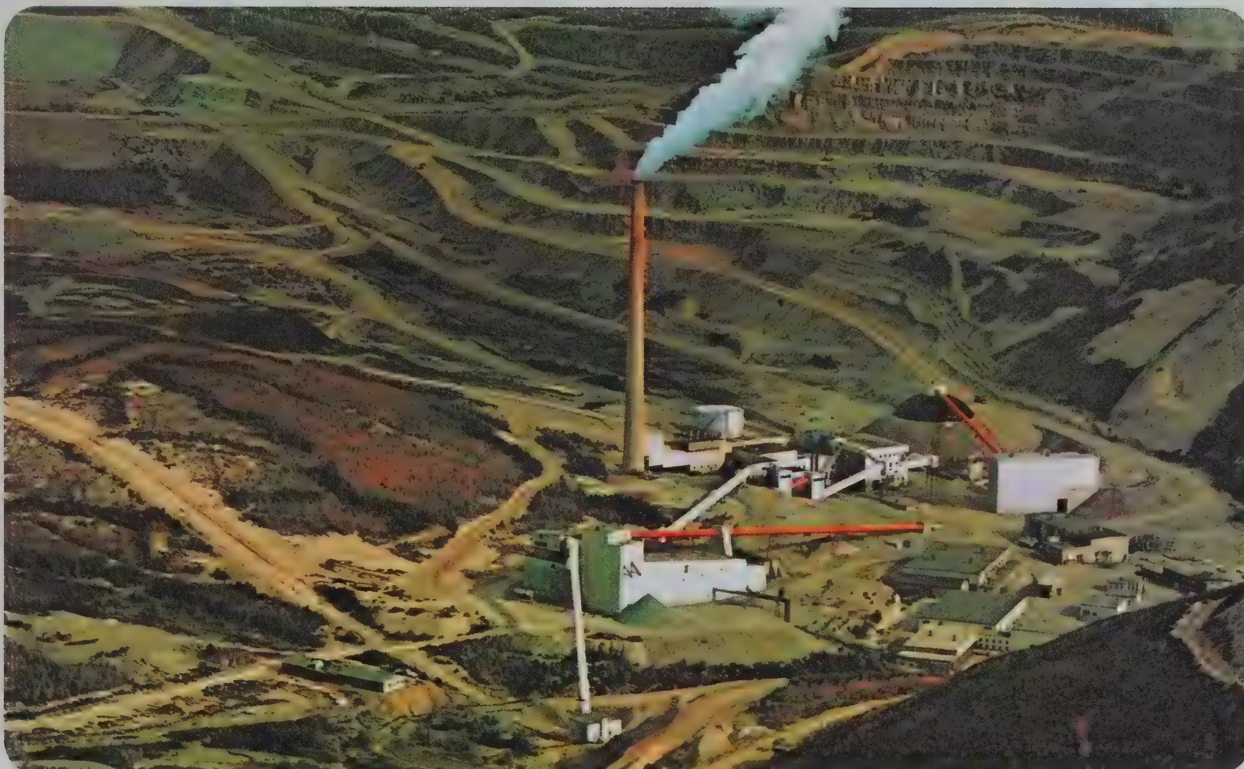
Tonnage of ore mined and treated established a new record at 1,815,000 tons for the year. Metal grades averaged 2.12% copper, 4.30% zinc and 1.93 oz. of silver per ton, and concentrates produced contained 36,000 tons of copper, 61,300 tons of zinc, 2,100 tons of lead and 2,530,000 ounces of silver.

Ore reserves, as estimated at the end of the year, remained about the same at 29.4 million tons with average grades of 1.94% copper, 4.22% zinc and 1.75 oz. of silver per ton.

Two major capital additions were completed: an installation to improve environmental control by which tailings water is recycled back to the concentrator for reuse, and a drying plant to reduce moisture in copper concentrate.

This mine is the mainstay for a modern community of some 3,500 people, the largest north of Lake Superior and east of Thunder Bay. Manitouwadge has provided many urban amenities and with the current additions of a swimming pool and golf course to the present model recreation centre, the range of facilities and opportunities for all ages is unsurpassed by other communities of comparable size.

## GASPÉ COPPER MINES



### Needle Mountain

The mine produced 1,687,000 tons of ore averaging 1.17% copper, including 412,000 tons from the open pit. Ore reserves remained substantially unchanged at 25.3 million tons averaging 1.33% copper.

The concentrator treated 1,580,300 tons of ore and produced 66,000 tons of concentrate containing 17,500 tons of copper and concentrate containing 206,000 lbs. of molybdenum.

### Copper Mountain

The open pit produced 2,368,500 tons of ore averaging 0.78% copper while 9,300,000 tons of waste, low grade ore and oxide ore were removed. Sulphide ore reserves decreased by the tonnage mined to 226 million tons averaging 0.40% copper while oxide ore reserves remained at 34 million tons averaging 0.45% copper.

The concentrator treated 2,359,400 tons of ore and produced 65,000 tons of concentrate containing 15,700 tons of copper and concentrate containing 260,000 lbs. of molybdenum.

The $108 million Copper Mountain project continued and will be completed in the second quarter, with the exception of the leaching plant which will be ready in late 1973. At year-end $94,000,000 had been spent or committed.

The application for a three-year exemption from federal tax for the Copper Mountain mine was denied by the government and a Notice of Objection filed with the Appeals Division of the Department of National Revenue. Should the assessment be confirmed it will be appealed.

| Smelter | Material Smelted | | Copper Content of |
|---|---|---|---|
| | Gaspé (tons) | Custom (tons) | Anodes Produced (tons) |
| 1972 | 236,800 | 118,000 | 63,800 |
| 1971 | 221,800 | 156,000 | 73,800 |
| 1970 | 227,500 | 141,500 | 69,900 |
| 1969 (strike) | 185,000 | 84,000 | 49,400 |
| 1968 | 228,600 | 107,000 | 61,100 |

The tonnage of custom material smelted decreased compared to 1971 due to a one-week illegal strike by construction workers and to production interruptions for the expansion program.

## BRUNSWICK MINING AND SMELTING

There was a net loss of $374,000 in 1972 compared with $9,873,000 (restated) in 1971, before extraordinary items. Operations were improved and interest and depreciation charges were lower.

### Mining Division

Total tonnage treated was 3,257,600 at 9.92% combined lead and zinc as compared to 3,039,600 at 9.65% in 1971. Grade of ore from No. 12 Mine increased from 11.36% combined lead and zinc in 1971 to 12.73%. The higher tonnage plus increased grade of ore resulted in record concentrate output. Operations were suspended for three weeks to keep concentrate inventory in line with sales. Permanent facilities to control gases from burning sulphides in an old stope have been installed on surface and underground.

The zinc-lead ore reserves at No. 12 Mine show a significant increase in tonnage and grade compared to the previous year as a result of new ore developed and the elimination of low grade material that will not be mined due to the more selective mining method now in use.

### Ore Reserves

| Zinc-Lead | Tons | Zinc % | Lead % | Silver oz. | Copper % |
|---|---|---|---|---|---|
| No. 12 Mine | | | | | |
| Proven | 58,770,000 | 9.30 | 3.77 | 2.72 | 0.27 |
| Probable | 14,756,000 | 9.57 | 4.10 | 3.03 | 0.28 |
| No. 6 Mine | | | | | |
| Proven | 4,323,000 | 6.09 | 2.25 | 2.07 | 0.41 |
| Copper | | | | | |
| No. 12 Mine | | | | | |
| Proven | 9,474,000 | 1.13 | 0.40 | 0.85 | 1.11 |

### Smelter Division

While construction to convert the zinc-lead smelter to a lead smelter reduced operating time to less than 9 months, production exceeded expectations.

| Production | 1972 | 1971 | |
|---|---|---|---|
| Net ISF metal | 1,870 | 74,230 | tons |
| S.H.G. zinc | 860 | 44,770 | " |
| Refined lead | 35,980 | 22,420 | " |
| Sulphuric acid | 92,430 | 119,000 | " |
| Silver | 1,562,790 | 1,142,300 | oz. |

The smelter was shut down in mid-October to modify sinter and crushing facilities. Labour difficulties delayed start-up until late February 1973. However, costs are within the estimate of $10,000,000 and the smelter is treating the current production of lead concentrate.

Prices received for lead metal averaged 13.9¢ per lb.

## CENTRAL CANADA POTASH

Revenue from the operation was severely restricted by some new rules imposed by the Saskatchewan Government under their Potash Conservation Regulations. By issuing a production license for a reduced and flatly prorationed allocation, the Government compelled curtailment of production and shipments in the 4th quarter to about 50%. A substantial part of C.C.P.'s contractual market was thereby confiscated. In fact, some 2,000,000 cooperative members of the CF Industries system have been denied their contractual right to purchase the planned output of the mine in which they have a collective 49% interest.

Application was made to the Saskatchewan Court for the provincial Minister of Mineral Resources to issue a license to produce potash in accordance with sound principles of utilization and conservation to fulfill contractual commitments. This was rejected by the Courts but a second action to challenge the constitutionality of the province's Potash Conservation Regulations and claim for damages, has been entered in the Court of Queen's Bench.

Underground linear advance for development and room and pillar mining was 27 miles for a total of 76 miles since 1969. Some 2,645,000 tons of ore averaging 27.7% $K_2O$ equivalent were treated to produce 1,046,000 tons of muriate of potash. Shipments of 973,000 tons were lower than planned due to prorationing of CCP's sales contract and the wet fall season for land application of fertilizers, leaving 180,300 tons in product inventory at the minesite.

Prices for premium grades of muriate were depressed by competition and in the period May through December all grades were sold at the province's floor price of 33.75¢ per unit of $K_2O$.

## LANGMUIR - Timmins

The concentrator and service buildings were completed during the summer of 1972, but a combination of excess water and incompetent ground conditions postponed completion of the shaft until October. However, production will begin by mid-1973 at the planned rate of 700 tons per day. Total estimated capital and preproduction development costs will be $11.1 million. Ore reserves, with allowance for dilution, are estimated at 1.4 million tons averaging 1.87% nickel.

### BELL COPPER

This 10,000 tons per day operation at Babine Lake, B.C., built at a cost of $44.5 million, started production in October following a 3-month work stoppage in the provincial construction trades.

Open pit mining consisted of 2.5 million tons of waste stripping, 0.9 million tons of low grade ore stockpiled for future treatment and 1.2 million tons of ore averaging 0.706% copper for delivery to the concentrator.

During the tune-up period to year-end, the concentrator treated 767,000 tons grading 0.66% copper for a daily average of 9,200 tons. The recovery was 82.5% in 15,400 tons of concentrate containing 4,150 tons of copper. The copper concentrate is being smelted at Noranda, Quebec. December's production was curtailed by cold weather problems in the crushing and conveying facilities and mechanical breakdowns in the grinding mills. Metal recovery is low due to the presence of oxide copper which will lessen as the pit is deepened.

Eighty single family units and 44 bachelor apartments at the Granisle townsite are mostly occupied or near completion.

### BRYNNOR MINES

Underground work did not prove any additional ore at the Boss Mountain mine and was terminated in July. The plant and property remained on a care and minimum maintenance basis.

### BRENDA MINES

Open pit operation yielded 9.5 million tons of milling ore averaging 0.208% copper and 0.061% molybdenum, and 3.3 million tons of low grade ore which was stockpiled. Waste stripping amounted to 5.9 million tons.

The milling rate averaged 25,965 tons per day compared to 24,600 in 1971. Metal recoveries were 90.4% for copper in 82,700 tons of concentrate and 86.1% for molybdenum in 8,975 tons of concentrate. The restriction on copper concentrate shipments to Japan continued throughout the year, requiring diversion to other custom smelters of some 25% of the concentrate.

The molybdenum market strengthened during the fourth quarter and sales for the year amounted to 66% of production, as compared to 53% in 1971. At year end there were unsold stocks of concentrate containing 11.0 million pounds of metal, an increase of 3.4 million pounds.

The regrind circuit for copper concentrate was installed and a substantial improvement in the grade of copper concentrate is now being achieved.

Operating costs at the mine were well controlled but revenues were adversely affected by low metal prices, higher charges on diverted copper concentrate and the unfavourable change in foreign exchange rates. The result was a net loss of $1.5 million after interest charges of $4.1 million and provision of $10.1 million for write-offs.

At year end, the outstanding debt was $56.5 million. Included in this amount was first mortgage debt of $19.6 million maturing on June 30, 1973, the disposition of which was under negotiation.

## Unconsolidated Subsidiaries

### EMPRESA MINERA DE EL SETENTRION

The Nicaraguan gold mine produced and treated 116,000 tons of ore averaging 0.7 ounces of gold per ton. Noranda received dividends of U.S.$848,000 from this subsidiary in 1972.

Good progress in hot water control enabled further development of the Panteon vein which, after supplying 75% of the tonnage treated in 1972, accounted for 90% of year-end ore reserves totalling 254,000 tons with average grade of 0.68 ounces of gold per ton.

The mine was not affected by the earthquake which destroyed the Nicaraguan capital of Managua on December 23rd.

### EMPRESA FLUORSPAR

Fluorspar shipments, particularly of lower priced material, were slow until the last quarter when improved demand brought the total shipped by Las Cuevas to 279,000 tons compared to 356,000 tons in 1971. Prices were firm throughout the year.

Las Cuevas paid dividends of U.S.$3,398,000, of which Empresa received U.S.$1,665,000. Additionally, U.S.$1,434,000 was received from the Mexican shareholders of Las Cuevas in final payment for their 51% equity. Therefore, Empresa's future earnings will reflect only 49% of the dividends paid by Las Cuevas.

Empresa declared dividends totalling U.S.$4,244,000, of which Noranda received U.S.$3,168,000.

# Associated Companies

Bud Rowswell

## KERR ADDISON MINES LIMITED

Profit for 1972 was $5,948,000 or 62¢ per share compared to 45¢ per share in 1971 after excluding 19¢ per share resulting from the sale of the Company's interest in the Bokum Keradamex Joint Venture less the loss on abandonment of the Adanac Project. Earnings from mining operations increased principally due to higher gold and zinc prices.

After paying dividends of 50¢ per share the net value of current assets and investments at market value excluding shares and debentures of subsidiary companies, increased to $10.38 per share compared to $8.70 a year earlier.

Because of the significant increase in the price of gold the Kerr Addison mine again became a major contributor to company profits with a production of 135,860 ounces. The Normetal Mine produced 29 million pounds of zinc and 1.1 million pounds of copper in concentrates. Ore reserves at Normetal are expected to be exhausted during the third quarter of 1973.

Earnings from the 21% interest in the Icon Sullivan Joint Venture were increased slightly. The Joutel Mine experienced metallurgical problems in converting from copper to zinc ore in August and had a small net loss during 1972.

The Blue Hill Joint Venture in Maine, U.S.A., 60% owned, commenced production in October. Zinc and copper concentrates are being treated by The National Zinc Co. in Oklahoma, and by Gaspé Copper Mines Limited, at Murdochville, Quebec. Daily production is expected to reach the planned rate of 1,000 tons per day during the first quarter of 1973. The programme to develop additional ore reserves was resumed in December.

## PAMOUR PORCUPINE MINES

Dividends totalling $480,000 were paid, of which Noranda received $229,000.

The mining claims and all other assets of **Aunor Gold Mines,** with the exception of $500,000 in cash, were purchased for 2,000,000 shares of Pamour's increased share capital, effective November 17. Thereafter Aunor shareholders authorized distribution of the remaining assets and dissolution of the company, from which Noranda received 1,104,788 shares of Pamour and $276,000 in cash.

As long as it is profitable, the acquired mine will be operated by trucking the ore some 11 miles to the Pamour mill for treatment beginning in March 1973.

Some 89,900 ounces of gold were produced from 632,100 tons of ore from No. 1 mine combined with 59,650 tons from No. 2 mine, with an average grade of 0.139 oz. of gold per ton, and 6,100 ounces of gold from 31,800 tons averaging 0.21 oz. of gold at the No. 3 mine (Aunor). Total production of 96,000 ounces was sold for an average of $59.70 per oz.

Mill expansion, to increase capacity from 1,800 to 2,500 tons of ore per day, will be completed by March 1973. 2700

Ore reserve estimates for the 3 mine properties totalled 2,250,400 tons averaging 0.178 oz. gold per ton. Only 15,600 tons averaging 0.27 oz. remained in the No. 2 mine where production averaged some 4,000 tons in recent months. The No. 2 mine was purchased in 1971 from **Hallnor Mines** which has remaining assets totalling $571,000 after having paid a further dividend of $1,600,000, of which Noranda received $1,551,200.

## ORCHAN MINES

Dividends paid totalled $2,423,000, the same as in 1971, of which Noranda received $1,090,000.

Ore treated in the Orchan mill totalled 376,800 tons including 2,700 tons from the new Garon Lake division during the last few days of the year. Average grade of ore from the Orchan mine was 10.6% zinc and 1% copper, and the reserves were depleted by 366,000 tons to 1,897,000 tons averaging 9% zinc and 1.2% copper.

The Garon Lake mine had been prepared and ready for production in October but late completion of the Provincial bridge across the Bell River delayed trucking the ore 11 miles to the Orchan mill. Reserves in this mine as indicated by drilling to date are 395,000 tons averaging 3.4% zinc and 1.7% copper.

The Norita property, on which drilling had indicated some 1,637,000 tons averaging 7.6% zinc and 0.7% copper, within 8 miles trucking distance of the Orchan mill, was acquired from Noranda in December and will be developed through a shaft for production by 1976.

# Some noranda people and scenes over 50 years.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1. 1922 – Ed Horne, finder of the Horne mine.
2. 1925 – Horne Mine Camp Site.
3. 1925 – No. 2 Shaft Horne Mine.
4. 1925 – J. Y. Murdoch, President and S. C. Thomson, Managing Director.
5. 1925 – First Rouyn Postal and Telegraph Office.
6. 1926 – J. Y. Murdoch and H. W. Chadbourne, Managing Director.
7. 1927 – Head Frame, Waite-Amulet Mine.
8. 1927 – Noranda Smelter.


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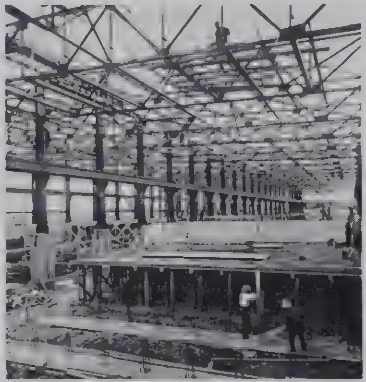
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1. 1927 – No. 3 shaft head frame where ore reserves were calculated worth $27 million with copper at 13¢ per lb.

2. 1932 – Tenth anniversary at Noranda, Quebec. (Back row) T. H. Rae, J. R. Timmins, Pres. Hollinger; O. Hall, Asst. Gen. Manager; S. C. Thomson, director; E. Horne, discoverer of Horne Mine; E. Hibbert, Consulting Engineer; H. L. Roscoe, Manager. (Front row) L. K. Fletcher and J. H. C. Waite who did original evaluation of Horne Mine; A. L. Ellsworth, director; J. Y. Murdoch, President; N. A. Timmins, director; F. M. Connell, director; T. N. Hay, secretary; N. C. Urquhart.

3. 1938 – At Noranda curling rink — L. Ames, Mill Supt.; C. Hughes, draftsman; R. V. Porritt, Manager and T. Whitman, Construction Foreman.

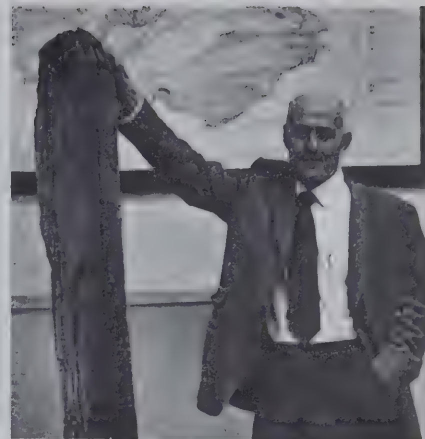
4. 1930 – Canadian Copper Refinery at Montreal East.

5. 1931 – Head frame and smelter with Quemont development shaft in foreground.

6. 1942 – The Governor General visits Noranda. C. G. McLaughlin, Mill Supt.; H. L. Roscoe, Manager; J. A. Carter, accountant; Lady-in-waiting; R. V Porritt, Asst. Manager; Princess Alice (Lady Athlone); Mrs. R. V. Porritt; Mrs. H. L. Roscoe; The Earl of Athlone.

7. 1952 – At Gaspé Copper Mines. J. Y. Murdoch; H. L. Roscoe; J. R. Timmins; O. Hall.

1. 1921 – Alfred Miller, original staker of Gaspé Copper Mine.
2. 1951 – Directors' meeting at Noranda, Que., L. H. Timmins, J. R. Bradfield, H. L. Roscoe, N. C. Urquhart, F. M. Connell, J. I. Rankin, J. R. Timmins and J. Y. Murdoch.
3. 1957 – At the Noranda guest house. C. H. Windeler, Sec.; R. V. Porritt, Gen. Mgr.; Monsignor Pelletier, J. R. Bradfield, Pres. and J. H. Stovel, Asst. Gen. Mgr.
4. 1952 – At the Noranda smelter. J. N. Anderson, Smelter Supt. and J. A. H. Paterson, Mgr. of Mining Corp.
5. 1963 – In England. R. G. Driver recently deceased President, Noranda Sales Corp. and his successor K. C. Hendrick.
6. 1961 – At Canada Wire's 50th anniversary. L. G. Lumbers, President, C.W.C.; O. W. Titus, Chairman C.W.C. and J. H. Stevens, Vice-President, C.W.C.
7. 1962 – Meeting of Research Committee at Pointe Claire, Quebec. J. H. Schloen, Managing Director of C.C.R.; L. Ames, Gen. Supt. of Mills; H. T. Airey, Asst. to Gen. Mgr.; J. H. Stovel, Gen. Mgr.
8. 1965 – At Geco Mines. D. E. G. Schmitt, Gen. Mgr., W. G. Brissenden, Asst. Gen. Mgr.; J. A. Graham, Mgr. of Geco, W. J. Marshall, Mgr. of Hallnor and R. P. Riggin, Dir. of Corp. Rel.



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1. 1967 – Gaspé Copper Mines won Ryan Trophy for fourth consecutive year for best safety record for any mine in Canada. M. E. Taschereau, Manager and A. Babin (mine captain).
2. 1971 – Noranda Aluminum Inc., on the Mississippi River, New Madrid, Missouri, U.S.A.
3. 1971 – Noranda directors visit Geco Mine. A. Powis, President; R. Wainwright, Gen. Supt. Geco; L. Brooks, Manager Geco; J. A. Graham, Gen. Mgr. Geco; W. P. Wilder, Director.
4. 1972 – At Noranda Research Centre, Pointe Claire, Quebec. B. H. Morrison, Chairman Research Committee; Dr. W. H. Gauvin, Dir. Res. Centre; Dr. N. R. Bharucha, Mgr. Res. Division.
5. 1971 – In Australia. T. A. Rodgers, Noranda representative in Australia; E. Futterer (deceased) Vice-President of Exploration.
6. 1969 – Opening of Central Canada Potash mine. W. S. Row, A. G. Ballachey, Mgr. of C.C.P.; A. C. Cameron, Min. of Mines for Sask.; A. Powis and K. F. Lundberg, then Pres. of C.F. Industries.
7. 1970 – Meeting of the Directors of Northwood Pulp and Timber at Prince George, B.C.

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# Other Important Interests

### MATTAGAMI LAKE MINES

Consolidated net earnings for the year were $14.3 million or $2.17 per share, including net proceeds of $0.29 from the sale of the open-pit portion of an orebody referred to below. A revised rate of depreciation accounted for increased earnings of $2.6 million or $0.39 per share. This is the first year in which financial statements of Mattabi Mines and St. Lawrence Fertilizers have been consolidated with Mattagami and therefore the results are not directly comparable to the net earnings of $5,737,000 or $0.87 per share in 1971.

**Mattabi Mines,** owned 60% by Mattagami, had ore reserves of 12,866,000 tons averaging 7.60% zinc, 0.91% copper, 0.84% lead and 3.13 ounces silver per ton. Of this, about 8 million tons can be mined by open pit. Facilities to treat 3,000 tons per day were completed on schedule and production commenced in early July.

The open pit portion of an orebody situated on Claim Group No. 23, some four miles east of Mattabi and immediately north of a common boundary with Sturgeon Lake Mines was sold for $3 million and other considerations. To date approximately 2 million tons of ore have been proved in two other orebodies along a strike length of about one mile to the northwest along the same geological horizon.

**Canadian Electrolytic Zinc** at Valleyfield, Quebec, operated at capacity throughout the year. Zinc production was a record 145,000 tons while cadmium production reached 854,000 pounds. C.E.Z. is owned by Mattagami Lake, Orchan, Kerr Addison and Noranda whose interests at present are 62.5%, 18.7%, 9.7% and 9.0% respectively. It was decided in late 1972 to expand C.E.Z. plant capacity from 400 to 620 tons of zinc a day. The owners also agreed that their interests in the expanded plant should be changed to better reflect their individual present and long-term capabilities to supply zinc concentrates to the plant. The new ownership distribution for the expanded plant will be Mattagami 51.7%, Orchan 15.8%, Kerr Addison 9.8% and Noranda 22.7%.

The expansion project, which will cost about $30 million, will include process changes to improve plant efficiency and metal recoveries. It is expected that the additional production will start by mid-1975.

**St. Lawrence Fertilizers Limited.** Fertilizer production was some 25% higher than in the previous year. In addition, there have been increases in fertilizer prices, and plant efficiency and costs have shown a marked improvement. As a result, this C.E.Z. subsidiary is now showing a modest cash profit in addition to maintaining its important function as an outlet for sulphuric acid from the zinc plant.

**Federated-Genco,** formed in April, 1971, is 40% owned by General Smelting which in turn is owned by C.E.Z. Its operation is based on handling non-ferrous scrap, the production of fabricated lead products and alloys, aluminum foundry metal, zinc dust and die-cast metal. Profit was considerably below plan due principally to narrow margins on copper scrap.

### PLACER DEVELOPMENT

Placer's 1972 earnings were $16.1 million or $2.69 per share, compared with a restated $7.0 million or $1.16 per share in 1971. The first quarterly dividend paid of 15¢ per share was the same as for each of the last two quarters of 1971. In the second quarter 20¢ was paid and in each of the last two quarters 30¢ per share was disbursed.

The improvement in earnings over the previous year reflects nine months' earnings of the new Gibraltar Mine, increased earnings from affiliated companies, revenue from the sale of options on Marcopper shares and a reduction in income taxes resulting from the write-off of exploration expenses.

Commencing January 1, 1972 Placer adopted the equity method of accounting under which the company's share of earnings or losses, rather than dividends received from all affiliates, are recorded as revenue.

### CRAIGMONT

The production of copper concentrate was higher during the year ended October 31, 1972 but adverse trends in metal prices and costs of production, shipping and smelting, resulted in net earnings of $2.5 million compared to $2.9 million in the previous year.

Dividends were paid totalling $4.6 million, of which Noranda received $900,000. Working capital was reduced $1.0 million to $7.6 million.

# MANUFACTURING
## Consolidated Companies

### CANADA WIRE & CABLE

Operations of Canada Wire & Cable continued to improve with sales and earnings at record levels. The company made gains in the domestic market and increased its participation substantially in export markets. It is continuing to modernize the facilities in its eleven Canadian plants and to expand its research and development activities.

Sales and earnings of its eight major foreign affiliates continue to grow and income from these investments is making an increasing contribution to the company's earnings.

### NORANDA METAL INDUSTRIES

Sales and earnings improved during 1972 with the two major consumers of brass mill products — construction and automotive — both enjoying record years. Higher sales volumes and improved operations were partially offset by inflationary cost increases and import price competition. A pilot plant for continuous casting of copper alloy strip has been installed at the Fergus operation. Significant cost reductions are expected from the process.

### NORANDA ALUMINUM

In its first full year of production the aluminum reduction plant in Missouri operated slightly above its rated capacity of 70,000 tpy and produced metal grade in excess of 99.85% purity which ranks it among the highest in the industry.

Shipments from the adjoining rod and cable plant exceeded 1971 by 50 percent and are expected to increase a further 25 percent during 1973.

U.S. industry shipments increased 13% over 1971 resulting in a reduction of total inventories and reactivation of several pot lines. Year end operating rates were at 90 percent compared to an opening rate of 80 percent. Prices stabilized in the 4th quarter and should improve in 1973.

### NORANDEX

This Cleveland operation achieved record sales and substantially improved profits in 1972. The U.S. home construction and remodeling industry was at its highest level for the second consecutive year and markets for aluminum siding, windows, doors, extrusions and carpeting were strong. Good progress was made in programs to improve utilization and effectiveness of the company's large distribution system of 88 warehouses.

### QUEBEC IRON FOUNDRIES

Sales and earnings of the foundry group were adversely affected by a 5 month strike at the B.C. plant, which terminated in September. All other locations operated at satisfactory levels.

### GRANDVIEW INDUSTRIES

Sales and earnings increased significantly over 1971. Manufacturing facilities at Rexdale, Ont. and Weyburn, Sask. were augmented by a new plastic extrusion plant at Langley, B.C. and acquisition of an industrial plastic fabricating operation in Mississauga, Ont.

### COULTER MANUFACTURING

All metal stamping and die casting operations were terminated in June. Disposal of assets has progressed according to plan.

### BELLEDUNE FERTILIZER

As contemplated in the refinancing of Brunswick Mining and Smelting in 1971, Belledune Fertilizer was acquired in April 1972. It produces diammonium phosphate using phosphate rock imported from Florida, ammonia from Ontario and sulphuric acid from the adjacent Brunswick smelter. This plant will be valuable as an outlet for sulphuric acid produced by Noranda Group companies. Prices for overseas shipments of diammonium phosphate are improving and the financial outlook is encouraging.

## Associated Companies

### CANPLAS INDUSTRIES

Record housing starts and increased acceptance of plastic plumbing fittings resulted in record sales and profits for 1972. A new plant under construction in Barrie, Ont. will increase manufacturing capacity by 50 percent and better serve the eastern Canadian market.

### WIRE ROPE INDUSTRIES

Sales and earnings improved during 1972. Construction of a new plant at Pointe Claire, Quebec, to consolidate five existing plants in eastern Canada is scheduled for completion in September 1973. A modernization and expansion program at Vancouver will be completed in May 1973.

Canada Wire installs seven miles
of 138 KV submarine cable
across Babine Lake, B.C.

Canada Wire's Aluminum press,
unique in North America
for continuous sheathing
of high voltage cables.

# FOREST PRODUCTS
## Consolidated Companies

The forest products have turned in their best results since Noranda's entry into this industry in 1961. Strong markets in all products except pulp, the maturing of operations and management and the acquisition of additional key facilities brought profitability to an acceptable level in spite of the inroads of inflation and currency problems.

It is also notable that the Northwood companies' overall lumber operation is now the second largest in Canada with production capacity for over 750 million board feet and sales in excess of one billion board feet per annum.

| **Production** | 1972 | 1971 | 1970 | 1969 | 1968 |
|---|---|---|---|---|---|
| Lumber– MFBM | 187,500 | 84,800 | 73,500 | 62,200 | 38,100 |
| **Sales** | | | | | |
| Lumber– MFBM | | | | | |
| Northwood Mills | 662,700 | 476,600 | 410,900 | 270,800 | 251,100 |
| Cooper– Widman | 458,100* | | | | |
| Total | 1,120,800 | | | | |
| Plywood– MSM 1/16 | 665,500* | | | | |

* 11 months

### NORTHWOOD MILLS

The new sawmills at Okanagan Falls and Princeton reached optimum production rates in the Spring and with the older units at Penticton and Princeton made a record showing. The result would have been significantly better but for the severe weather early in the year which crippled transportation and logging for several weeks. The movement and sale of chips was limited to 50% of potential due to the year-long scarcity of railway chip cars.

Effective October 1, Northwood acquired the 50% of **McBride Lumber and Building Supplies** it did not own as well as the operations of **Cooper-Widman** and **Tru-Fit,** both of which had been divisions of **Bulkley Valley Forest Industries.** These operations, excepting Tru-Fit, will be combined in a distribution division to be called **Northwood Building Materials,** initially operating eight warehouses in five provinces as well as the existing Vancouver trading office. Tru-Fit will continue to manufacture doors and mouldings and assume responsibility for wood product development.

Labour negotiations resulted in a settlement of all interior B.C. contracts at a cost of about 23% for a two-year contract which brings all B.C. woodworker wages to the same scale.

The London, U.K. sales operation expanded through a joint sales office arrangement with Vaner Forest Industries of Sweden and also an agency for Finnish sawngoods.

Operating difficulties persisted at **Fundy Forest Industries** and resulted in that company going into receivership on April 29. A proposal for reorganization of Fundy's affairs is presently under study.

### NORTHWOOD PULP AND TIMBER

The acquisition of **Bulkley Valley Forest Industries** on February 1 was a major event. As mentioned previously, the marketing and product manufacturing divisions of BVFI were subsequently sold to Northwood Mills, leaving the Houston sawmill and related woods operations in Northwood Pulp and Timber. This troubled sawmill was gradually revised and restaffed during the year which ended with production at double the rates being achieved at date of acquisition. It is believed that these operations can now make a sustained important contribution of profits and wood chips to Northwood Pulp and Timber.

The other four sawmills at Prince George, Shelley, Eagle Lake and Upper Fraser performed well and as a result of the extraordinary lumber prices achieved record profits. As mentioned, all timber operations were involved in labour negotiations which resulted in 'coast parity' over a two-year term at a cost of about 23%.

| **Production** | 1972 | 1971 | 1970 | 1969 | 1968 |
|---|---|---|---|---|---|
| Pulp– Tons | 230,400 | 215,500 | 244,100 | 226,800 | 201,800 |
| Lumber– MFBM | 481,200 | 315,300 | 238,200 | 228,000 | 212,300 |

Pulp operations were generally satisfactory, although over-supply was a considerable depressant in the first half of the year. Markets firmed noticeably in the second half and the outlook for 1973 is for a better operating rate and prices. The whole pulp industry remains vulnerable to work stoppages which have given Canadian producers both a poor reputation and a marginal position in world markets.

**B.C. Chemicals** at Prince George, British Columbia, maintained profit rates and expanded its sodium chlorate production capacity by 50% to 18,000 tons per annum. In 1973 it will construct a plant to produce crude tall oil from pulp mill soap skimmings which will significantly improve the quality of the related pulp effluents.

## BRITISH COLUMBIA FOREST PRODUCTS

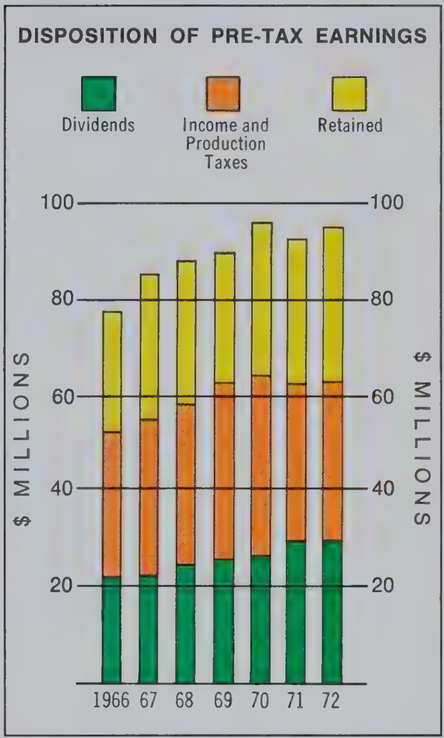
This company shared in the excellent markets for building materials as well as having greater market pulp production, resulting in earnings of $2.75 compared with $1.30 per share in 1971. Four quarterly dividends of 10¢ per share were paid.

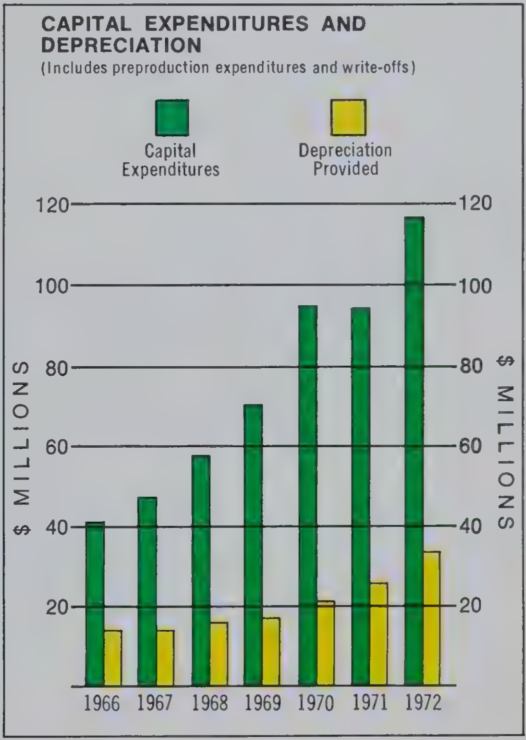
Although hurt by work stoppages of fallers on the Coast as well as construction tradesmen at Mackenzie, the company was able to maintain operations without serious production outages. The Mackenzie pulp mill produced some brownstock in December and has had a successful start-up to date. The late completion of this project is compensated for by the strength of the pulp markets as it commences production.

The full Mackenzie project will be completed within financing limits and should begin paying its way during 1973.

| **Production** | 1972 | 1971 | 1970 | 1969 | 1968 |
|---|---|---|---|---|---|
| Lumber– MFBM | 536,800 | 438,200 | 484,700 | 486,000 | 505,000 |
| Plywood– MSM ⅛₆ | 747,800 | 651,900 | 659,000 | 684,000 | 667,900 |
| Pulp– Tons | 272,900 | 220,800 | 217,500 | 272,900 | 255,900 |
| Newsprint– Tons | 240,000 | 237,750 | 186,700 | 222,600 | 165,500 |

Northwood Pulp's effluent treatment system.



## CONSOLIDATED STATEMENTS OF EARNINGS AND RETAINED EARNINGS

FOR THE YEAR ENDED DECEMBER 31,

| | 1972 | 1971 |
|---|---|---|
| **EARNINGS** | (in thousands) | |
| **Revenue:** | | |
| From metals, products and custom tolls (note 7) | **$ 576,179** | $ 461,520 |
| Dividends and interest earned (notes 1(b) and 10) | **15,626** | 16,489 |
| Share of profits in associated companies (note 2(a) (i)) | **11,107** | 5,222 |
| Gain on sale of investments | **475** | 541 |
| | **603,387** | 483,772 |
| **Expense:** | | |
| Cost of metal production and products sold | **408,506** | 317,947 |
| Administration, selling and general expenses | **37,257** | 33,704 |
| Depreciation (1972 — $30,754,000) and preproduction charges | **32,614** | 24,052 |
| Exploration and research written off (note 8) | **9,137** | 4,767 |
| Interest (including long-term debt interest of $19,084,000) (note 10) | **20,462** | 10,828 |
| | **507,976** | 391,298 |
| | **95,411** | 92,474 |
| Income and production taxes | **33,764** | 33,677 |
| Minority interest in losses of subsidiaries | **(2,686)** | (2,653) |
| | **31,078** | 31,024 |
| Earnings before extraordinary items | **64,333** | 61,450 |
| **Extraordinary items:** (note 9) | **—** | (631) |
| Earnings after extraordinary items | **$ 64,333** | $ 60,819 |
| **Earnings per share:** | | |
| Before extraordinary items | **$2.65** | $2.53 |
| After extraordinary items | **$2.65** | $2.50 |
| **RETAINED EARNINGS** | | |
| **Balance,** beginning of year: | | |
| As previously reported | **$ 361,000** | $ 329,262 |
| Adjustment of prior period income taxes re Gaspé Copper Mines strike settlement | **468** | 468 |
| As restated | **360,532** | 328,794 |
| **Earnings after extraordinary items** | **64,333** | 60,819 |
| | **424,865** | 389,613 |
| Dividends paid | **29,056** | 28,995 |
| Excess of cost of investments in consolidated subsidiaries over book value of assets acquired (note 1(a)) | **670** | 86 |
| | **29,726** | 29,081 |
| **Balance,** end of year | **$ 395,139** | $ 360,532 |

(See accompanying notes)

## CONSOLIDATED STATEMENT OF SOURCE AND APPLICATION OF FUNDS

FOR THE YEAR ENDED DECEMBER 31,

| | 1972 | 1971 |
|---|---|---|
| | (in thousands) | |
| **Working capital,** beginning of year — as restated | **$ 139,061** | $ 131,422 |
| **Source of funds:** | | |
| Operations — | | |
| Earnings before extraordinary items | **64,333** | 61,450 |
| Depreciation and preproduction charges | **32,614** | 24,052 |
| Deferred taxes | **13,397** | 5,486 |
| Minority interest in losses of subsidiaries | **(2,686)** | (2,653) |
| | **107,658** | 88,335 |
| Issue of shares | **1,039** | 1,153 |
| Long-term financing | **53,226** | 80,000 |
| Fixed asset disposals and adjustments | **17,317** | 3,312 |
| Increase (decrease) in deferred liabilities and holdbacks payable | **(1,738)** | 2,789 |
| | **177,502** | 175,589 |
| **Application of funds:** | | |
| Fixed assets and projects under construction | **109,573** | 84,876 |
| Acquisition of Brunswick Mining and Smelting Corporation Limited | **—** | 13,394 |
| Dividends | **29,056** | 28,995 |
| Investments and advances (net) | **23,302** | 17,770 |
| Current maturities of long-term debt | **24,324** | 14,434 |
| Deferred preproduction, exploration and other expenditures | **8,880** | 7,152 |
| Other (net) | **657** | 1,329 |
| | **195,792** | 167,950 |
| **Net (decrease) increase** | **(18,290)** | 7,639 |
| **Working capital,** end of year | **$ 120,771** | $ 139,061 |

(See accompanying notes)

## NORANDA MINES LIMITED

(Incorporated under the laws of Ontario) and its consolidated subsidiaries

## CONSOLIDATED BALANCE SHEET — DECEMBER 31

| | 1972 | 1971 |
|---|---|---|
| **ASSETS** | (in thousands) | |
| **Current assets:** | | |
| Cash and short-term commercial notes | $ 15,750 | $ 30,795 |
| Marketable investments, at cost less amounts written off (quoted market value $23,979,000) | 22,066 | 23,057 |
| Accounts, advances and tolls receivable ($4,180,000 due from unconsolidated subsidiaries) | 144,637 | 122,652 |
| Inventories — mine products at estimated realizable value, other inventories at the lower of cost or market | 159,402 | 146,636 |
| | 341,855 | 323,140 |
| **Investments and advances:** | | |
| Unconsolidated subsidiaries, at cost (note 1(b)) | 3,683 | 3,736 |
| Associated and other companies (note 2(a)) | 201,038 | 186,084 |
| | 204,721 | 189,820 |
| **Fixed assets:** | | |
| Property, buildings and equipment, at cost | 700,063 | 663,286 |
| Accumulated depreciation | (275,764) | (253,862) |
| | 424,299 | 409,424 |
| Projects under construction | 101,823 | 55,196 |
| | 526,122 | 464,620 |
| **Other:** | | |
| Preproduction ($22,120,000), exploration ($11,338,000) and other expenditures deferred | 47,258 | 39,697 |
| Debenture and revenue bond discount and financing expenses, at cost less amortization | 4,777 | 5,202 |
| | 52,035 | 44,899 |
| | $1,124,733 | $1,022,479 |

(See accompanying notes)

## AUDITORS' REPORT

To the Shareholders of
Noranda Mines Limited:

We have examined the consolidated balance sheet of Noranda Mines Limited and its consolidated subsidiaries as at December 31, 1972, and the consolidated statements of earnings, retained earnings, and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

Toronto, Canada,
February 19, 1973.

| | 1972 | 1971 |
|---|---|---|
| **LIABILITIES** | (in thousands) | |
| **Current liabilities:** | | |
| Bank advances | **$ 37,376** | $ 11,266 |
| Accounts payable ($105,000 due to unconsolidated subsidiaries) | **142,882** | 127,396 |
| Taxes payable | **10,210** | 13,986 |
| Debt due within one year (note 3) | **30,616** | 31,431 |
| | **221,084** | 184,079 |
| **Deferred liabilities and holdbacks payable** | **4,304** | 6,042 |
| **Deferred taxes** | **40,118** | 26,721 |
| **Long-term debt** (note 3) | **349,849** | 320,947 |
| **Minority interest in consolidated subsidiaries** | **28,979** | 39,937 |
| **Shareholders' equity:** | | |
| Capital stock (note 4) — | | |
| Authorized: 40,000,000 shares of no par value | | |
| Issued: 24,297,805 shares | **80,217** | 79,178 |
| Contributed surplus | **5,043** | 5,043 |
| Retained earnings | **395,139** | 360,532 |
| | **480,399** | 444,753 |
| | **$1,124,733** | $1,022,479 |

On behalf of the Board:

JOHN R. BRADFIELD, Director

ALFRED POWIS, Director

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1972 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

CLARKSON, GORDON & CO.,
Chartered Accountants.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 1972

**1. Basis of statement presentation and foreign exchange translation.**

(a) The accompanying consolidated financial statements include the accounts of Noranda Mines Limited (the "Company") and all of its subsidiaries except a number of foreign operating companies, and non-operating investment companies the earnings and assets of which are not significant in relation to the consolidated financial position.

During the year the Company acquired control of 3 operations in the forest products division for a total consideration of $2,962,000. These operations have been included from dates of acquisition in the accompanying consolidated statement of earnings and the excess of the cost of these operations over their underlying net asset values has been written off against consolidated retained earnings.

(b) Revenue from dividends and interest earned includes $4,304,000 dividends from unconsolidated subsidiaries. The Company's share of the aggregate profits less losses of these unconsolidated subsidiaries for their 1972 fiscal periods amounted to $3,505,000. At December 31, 1972 there was no significant balance of undistributed profits in these unconsolidated subsidiaries.

(c) Foreign currency assets and liabilities of the Company and its domestic subsidiaries have been translated into Canadian dollars at current rates of exchange. Working capital of foreign subsidiaries has also been translated at current rates while their fixed assets and long-term debt have been translated at historic rates.

**2. Investments**

(a) The investments in and advances to "Associated and other companies" include:

(i) 50% interests in Northwood Pulp and Timber Limited and Brenda Mines Ltd. and a 29% interest in British Columbia Forest Products Limited (controlled jointly with a partner company). These investments are accounted for on the basis of cost plus Noranda's equity in undistributed earnings since dates of acquisitions.

(ii) Other investments carried at cost less amounts written off.

These investments in and advances to "Associated and other companies" are not temporary investments. They include shares carried at a book value of $115,423,000 which had a quoted market value of $232,936,000 at December 31, 1972. The latter amount does not necessarily represent the value of these holdings, which may be more or less than that indicated by market quotations.

(b) An unconsolidated subsidiary holds 56,000 shares of the Company.

**3. Debt**

(a)

| | Dec. 31, 1972 | Dec. 31, 1971 |
|---|---|---|
| Long Term Debt: | (in thousands) | |
| — Noranda Mines Limited | | |
| 6½% notes payable due February 3, 1975 | $ 20,000 | — |
| 10% notes payable due February 2, 1973 | 20,000 | $ 20,000 |
| 8⅝% notes payable due January 17, 1972 | — | 10,000 |
| 7½% sinking fund debentures due Oct. 1, 1988 | 30,000 | 30,000 |
| 9¼% sinking fund debentures due Oct. 15, 1990 | 40,000 | 40,000 |
| — Canada Wire and Cable Limited | | |
| 5⅝% sinking fund debentures maturing June 1, 1983 | 2,700 | 3,000 |
| — Noranda Aluminum, Inc. | | |
| 4.80% to 5.90% industrial revenue bonds, serial and sinking fund issues, maturing Nov. 1, 1973 to 1978 and 1993 (Dec. 31, 1972 — $82,915,000 U.S.; Dec. 31, 1971 — $85,000,000 U.S.) (note 3(b)) | 88,759 | 91,163 |
| — Norandex Inc. | | |
| 5½% — 9¼% mortgage notes payable in monthly installments to 1990 (Dec. 31, 1972 — $11,902,000 U.S.; Dec. 31, 1971 — $12,740,000 U.S.) | 12,774 | 13,684 |
| — Brunswick Mining and Smelting Corporation Limited | | |
| 5.55% First Mortgage Bonds, series "A" maturing April 1, 1972 | — | 1,000 |
| 5.85% First Mortgage Sinking Fund Bonds, series "A" maturing April 1, 1973-1986 inclusive | 14,032 | 14,032 |
| 7.25% General Mortgage Bonds, series "A" maturing August 15, 1972 | — | 1,000 |
| 7.25% General Mortgage Sinking Fund Bonds, series "A" maturing August 15, 1973-1987 inclusive | 16,000 | 16,000 |
| — sundry indebtedness | 1,065 | 1,184 |
| | 245,330 | 241,063 |
| Other Debt: | | |
| Notes payable (note 3(c)) | 109,135 | 96,315 |
| Banker's acceptances (note 3(d)) | 26,000 | 15,000 |
| | 380,465 | 352,378 |
| Debt due within one year | 30,616 | 31,431 |
| Long-term debt | $ 349,849 | $ 320,947 |

Maturities of long-term debt are as follows:

1974 — $ 25,900,000; 1975 — $ 25,600,000;
1976 — $116,600,000; 1977 — $ 7,800,000;
Subsequent — $173,949,000.

(b) Assets and the related debt of the aluminum plant in New Madrid, Missouri, while technically the property and obligation of the City, are carried on the Company's books by virtue of its long term lease option and unconditional guarantees.

(c) Notes payable represent promissory notes with maturities from January to June 1973. During 1972 the Company increased its revolving contractual credits with its bankers from $80,000,000 to $120,000,000 extending to June 30, 1976. Notes payable have been classified as long-term debt to the extent of these credits.

(d) $20,000,000 Banker's acceptances are also supported by credits maturing in 1974 and are classified as long-term debt.

**4. Capital Stock**

(a) During the year 40,380 shares in the Company's capital stock were issued under the Company's stock option plan for $1,039,000. At December 31, 1972 options on 57,891 shares were outstanding, exercisable at prices varying from $22.94 to $30.23 for periods up to 1978.

(b) Under the Company's share purchase plan shares are sold to a trustee for resale to employees financed by an interest free loan from the Company. At December 31, 1972 the amount of the loan included in accounts receivable was $1,609,000.

**5. Commitments and contingent liabilities**

(a) Approved capital projects and financing commitments outstanding total approximately $70,000,000 at December 31, 1972.

(b) The Company has guaranteed repayment of bank loans of associated companies to the extent of approximately $23,400,000. Of this total some $5,700,000 is in respect of one associated company which is in receivership. Ultimate disposition of this amount depends on steps being taken to reorganize this company. However, no provision has been made for the possible loss, if any, pending outcome of this reorganization.

(c) As at December 31, 1972 the Company's total unfunded obligation under its pension plans with respect to past service is estimated at $6,000,000 of which $1,000,000 has been provided in the accounts. These obligations are funded as required by applicable governing legislation. In Canada the past service obligation is funded and absorbed against income over a period up to 17 years.

**6. Income Taxes**

U.S. subsidiaries of the Company have estimated loss carry-forwards for tax purposes of approximately $21,000,000 which are available to offset taxable income in the next few years.

**7. Consolidated Divisional Revenues**

Revenues from the main divisions of the business are set out on page 30 in the table of "Consolidated Divisional Results".

**8. Exploration Expenditures**

In 1971 a gain from the sale of Noranda's interest in a uranium prospect in New Mexico amounting to $5,133,000 was offset against exploration expenditures written off.

**9. Extraordinary Items**

Extraordinary items included in the 1971 consolidated statement of earnings were as follows:

| | (in thousands) |
|---|---|
| Provision for loss on discontinuance of certain mining and manufacturing operations (net of tax) | $ (1,326) |
| Share of exchange gain on conversion of Brenda Mines Ltd. long-term debt from U.S. to Canadian dollars | 695 |
| | $ (631) |

**10. Interest**

Short-term interest earned in 1971 of $5,156,000 previously included in revenue from dividends and interest earned has been reclassified for comparative purposes as an offset against interest expense.

**11. Remuneration of Directors and Senior Officers**

The aggregate direct remuneration paid or payable by the Company and its consolidated subsidiaries to directors and senior officers amounted to $1,092,000.

## CONSOLIDATED DIVISIONAL RESULTS

| | 1972 | 1971 |
|---|---|---|
| | (in thousands) | |
| **Revenue from metals, products and custom tolls** | | |
| Copper mining, smelting and refining operations * | **$ 214,186** | $ 237,189 |
| Other mining and metallurgical operations ** | **85,728** | 39,925 |
| Total mining and metallurgical operations | **299,914** | 277,114 |
| Manufacturing operations | **302,563** | 265,590 |
| Forest products operations ** | **167,974** | 72,773 |
| Gross revenue | **770,451** | 615,477 |
| Less: sales between divisions | **72,137** | 75,703 |
| sales of associated companies ** | **122,135** | 78,254 |
| Revenue as reported | **$ 576,179** | $ 461,520 |
| **Earnings before extraordinary items** | | |
| Copper mining, smelting and refining operations * | **$ 44,719** | $ 46,550 |
| Other mining and metallurgical operations ** | **8,864** | 3,971 |
| Earnings from mining investments | **13,748** | 14,082 |
| Gross mining and metallurgical earnings | **67,331** | 64,603 |
| Less: exploration written off net of applicable tax reductions | **6,433** | 2,202 |
| Net mining and metallurgical earnings | **60,898** | 62,401 |
| Manufacturing operations and investments | **11,358** | 5,401 |
| Forest products operations ** | **10,696** | 3,559 |
| Earnings before common costs | **82,952** | 71,361 |
| Less: common costs | **18,619** | 9,911 |
| Net earnings before extraordinary items | **$ 64,333** | $ 61,450 |
| **Breakdown of common costs** | | |
| Corporate office costs | **$ 6,251** | $ 5,242 |
| Interest expense net of revenue | **19,340** | 10,669 |
| Unallocated research costs | **638** | 859 |
| Less applicable tax reductions | **(7,610)** | (6,859) |
| Total | **$ 18,619** | $ 9,911 |

* Consists of operations of the Horne, Geco and Bell Copper Mines, Gaspé Copper Mines and Canadian Copper Refiners.

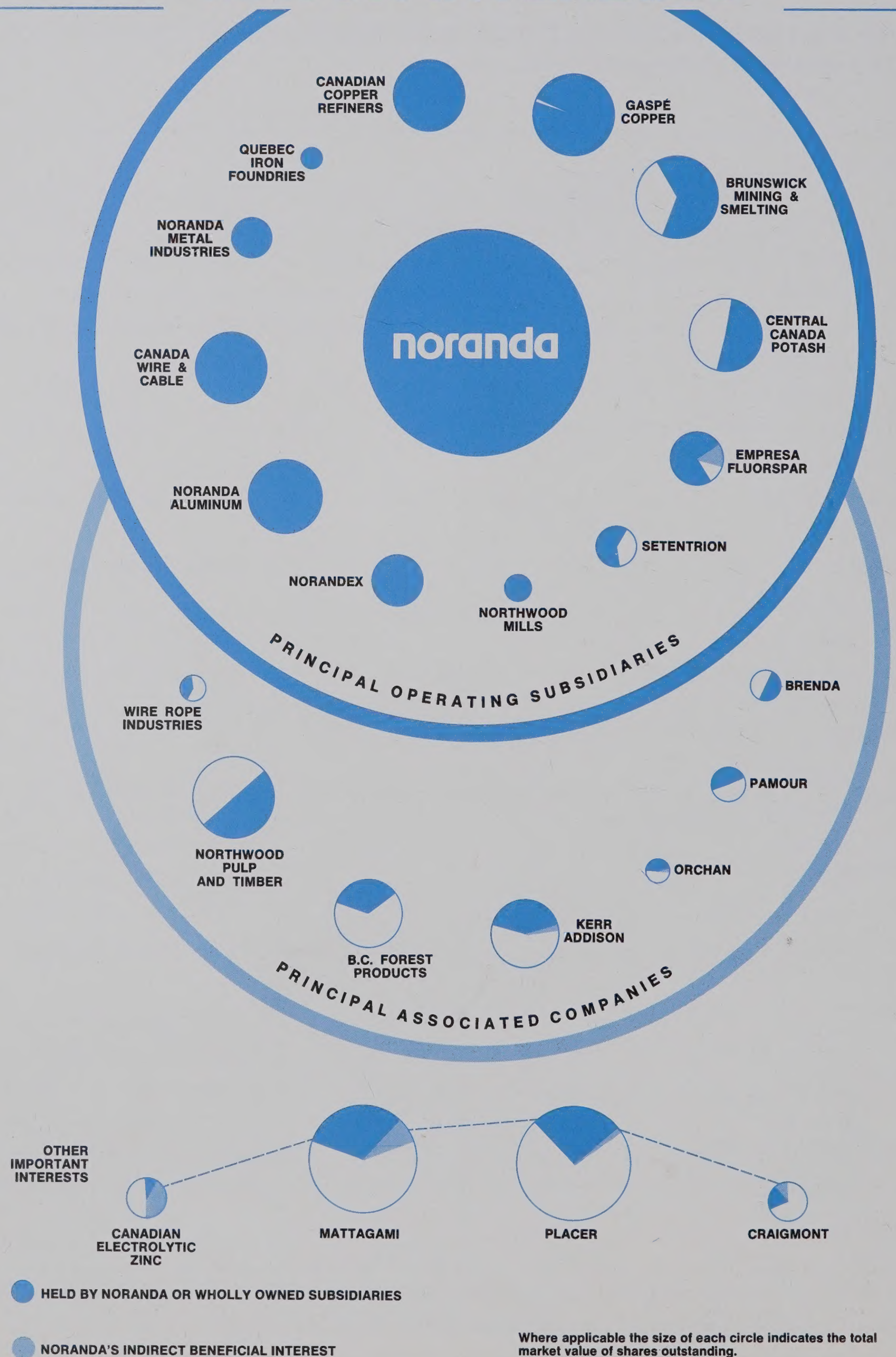
** Gross revenues and earnings include Noranda's share of the revenues and earnings of associated companies accounted for on an equity basis. These gross revenues include $13,534,000 from mining and metallurgical operations and $108,601,000 from forest products operations in 1972. ($13,937,000 and $64,317,000 respectively in 1971.)

## RESULTS OF PRINCIPAL UNCONSOLIDATED SUBSIDIARY AND ASSOCIATED MINING COMPANIES (Dollars in thousands)

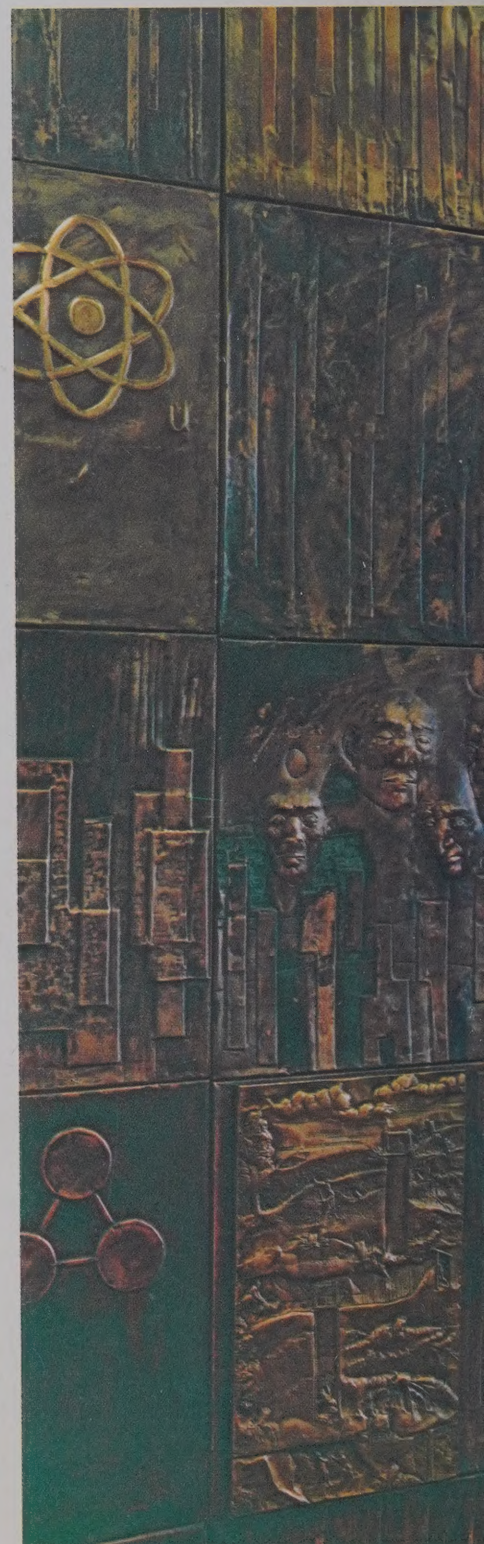
| | EMPRESA FLUORSPAR MINES (U.S. Currency) | | EMPRESA MINERA de EL SETENTRION (U.S. Currency) | | KERR ADDISON MINES | | ORCHAN MINES | | PAMOUR PORCUPINE MINES | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1972 | 1971 | 1972 | 1971 | 1972 | 1971 | 1972 | 1971 | 1972 | 1971 |
| Revenues | $3,436 | $1,658 | $5,756 | $3,847 | $22,139 | $23,755 | $13,659 | $11,640 | $6,309 | $3,464 |
| Expenses | 70 | 79 | 2,420 | 2,090 | 12,632 | 15,322 | 6,846 | 6,224 | 5,390 | 3,277 |
| | 3,366 | 1,579 | 3,336 | 1,757 | 9,507 | 8,433 | 6,813 | 5,416 | 919 | 187 |
| Depreciation and Write-offs | — | — | 524 | 427 | 1,811 | 1,624 | 1,247 | 2,019 | 153 | 62 |
| Income and Production Taxes | 281 | 28 | 731 | 417 | 1,748 | 715 | 2,100 | 1,385 | — | — |
| | 281 | 28 | 1,255 | 844 | 3,559 | 2,339 | 3,347 | 3,404 | 153 | 62 |
| Earnings | $3,085 | $1,551 | $2,081 | $ 913 | $ 5,948 | $ 6,094 | $ 3,466 | $ 2,012 | $ 766 | $ 125 |
| Dividends Declared | $4,244 | $1,819 | $1,400 | $1,400 | $ 4,767 | $ 4,291 | $ 2,423 | $ 2,423 | $ 480 | $ 250 |
| Working Capital | $ 551 | $1,710 | $4,445 | $3,736 | $15,843 | $19,962 | $10,235 | $ 8,658 | $3,737 | $ 706 |
| Noranda's interest: | | | | | | | | | | |
| Direct | 75% | | 61% | | 41% | | 45% | | 49% | |
| Benefical * | 89% | | 61% | | 44% | | 50% | | 49% | |
| Direct interest in: | | | | | | | | | | |
| Earnings | $2,314 | | $1,269 | | $ 2,439 | | $ 1,560 | | $ 375 | |
| Dividends | $3,183 | | $ 854 | | $ 1,954 | | $ 1,090 | | $ 235 | |
| Shareholders' Equity | $ 924 | | $2,941 | | $28,734 | | $ 8,321 | | $6,611 | |
| 1972 Dividends per Noranda Share | $ 0.13 | | $ 0.04 | | $ 0.08 | | $ 0.04 | | $ 0.01 | |

* Effective interest through direct and indirect investment in common shares.

# MAJOR INTERESTS




Where applicable the size of each circle indicates the total market value of shares outstanding.



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